Fig. 1A

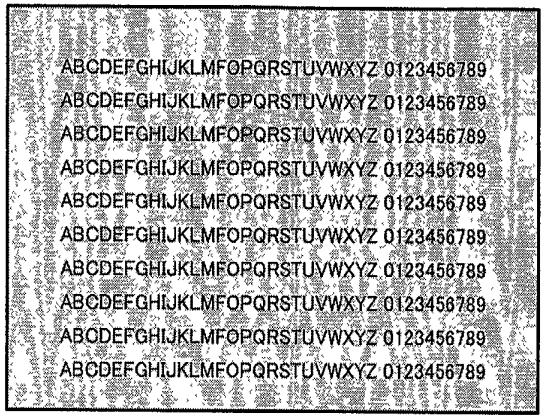


Fig. 1B

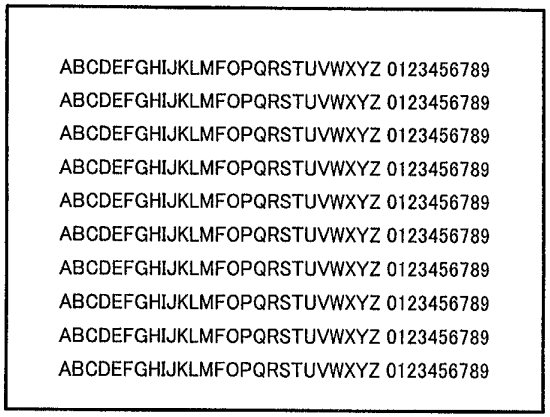


Fig. 1C

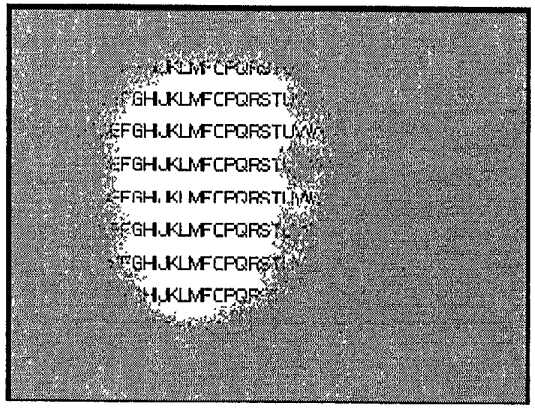


Fig. 1D

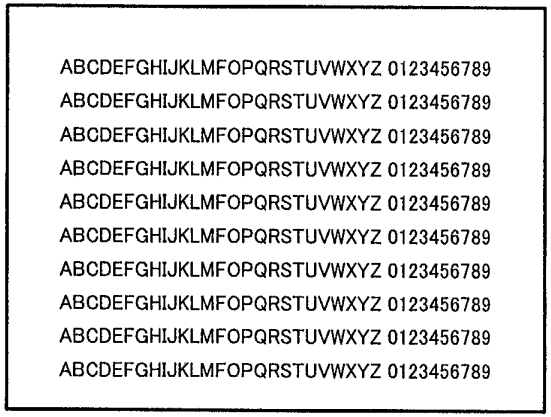


Fig. 2

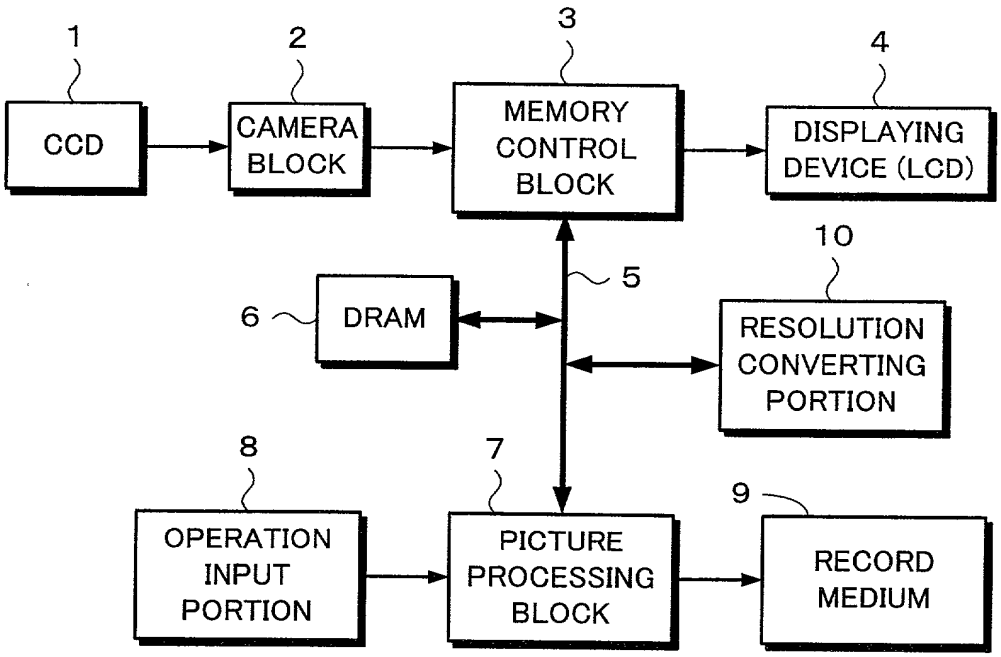
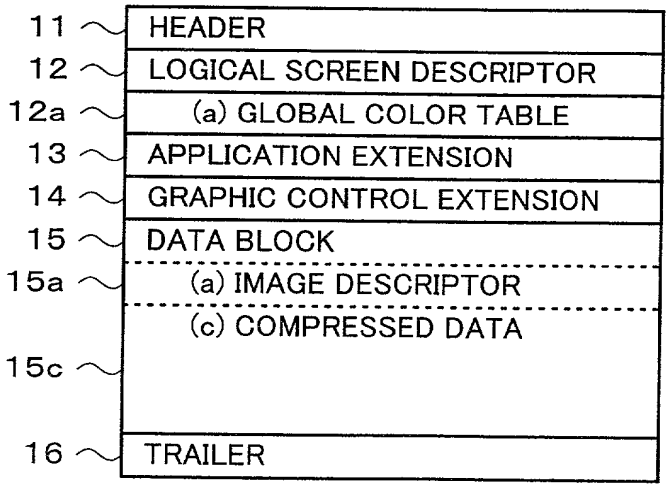

1
CCD
2
CAMERA BLOCK
3
MEMORY CONTROL BLOCK
4
DISPLAYING DEVICE (LCD)
5
6
DRAM
10
RESOLUTION CONVERTING PORTION
8
OPERATION INPUT PORTION
7
PICTURE PROCESSING BLOCK
9
RECORD MEDIUM

Fig. 3


11
HEADER
12
LOGICAL SCREEN DESCRIPTOR
12a
(a) GLOBAL COLOR TABLE
13
APPLICATION EXTENSION
14
GRAPHIC CONTROL EXTENSION
15
DATA BLOCK
15a
(a) IMAGE DESCRIPTOR
(c) COMPRESSED DATA
15c
16
TRAILER

09/15/2005 - 10:10:50 p.

Fig. 4A

Fig. 4B

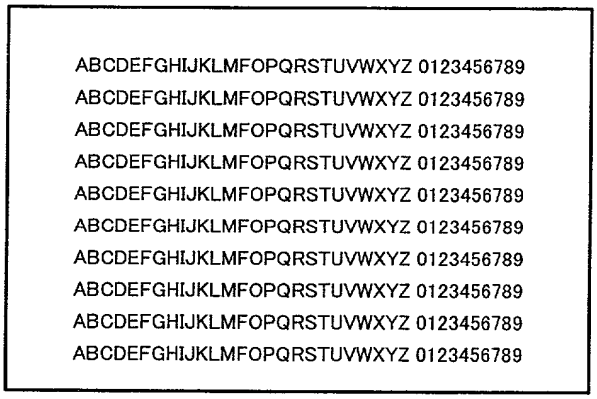


Fig. 4C

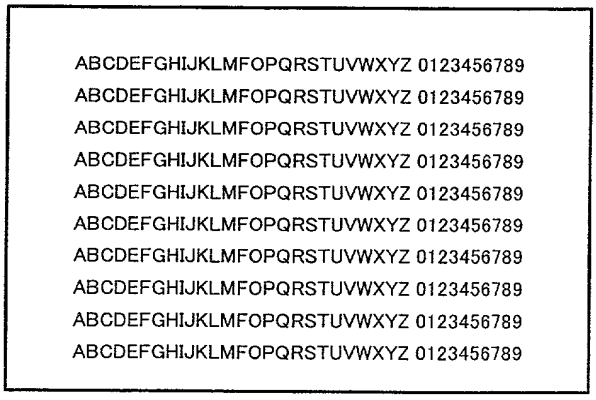
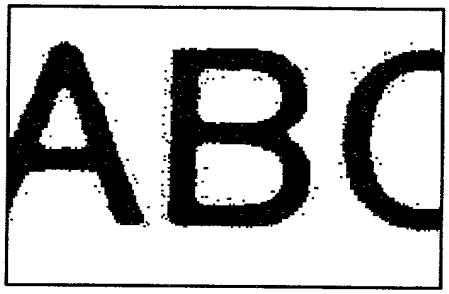
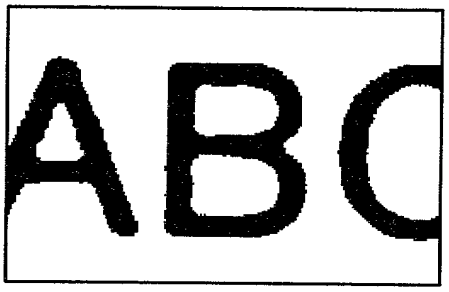


Fig. 5A



JPEG DIGITIZED PICTURE

Fig. 5B



JPEG DIGITIZED PICTURE

Fig. 6A

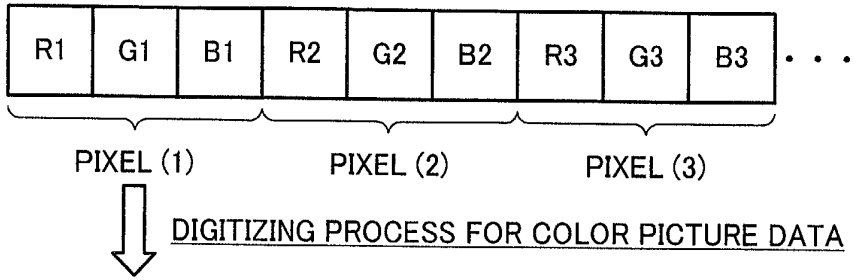


Fig. 6B

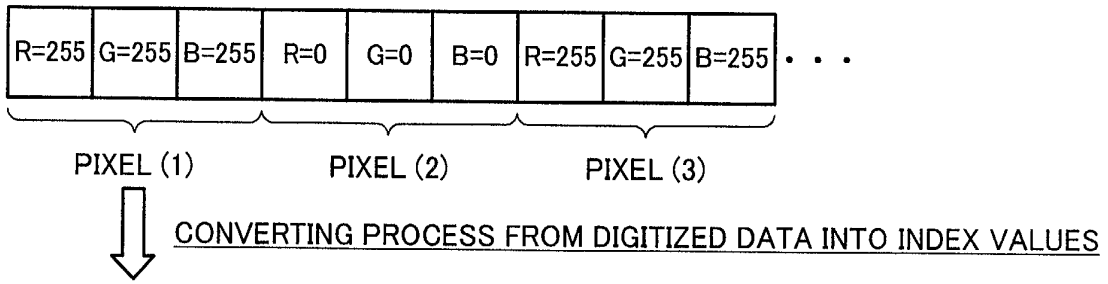


Fig. 6C

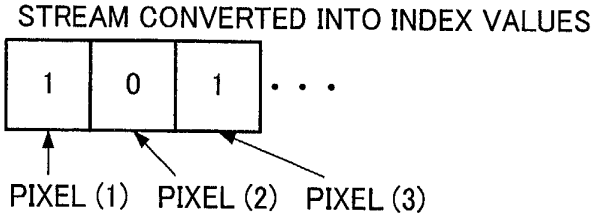


Fig. 7

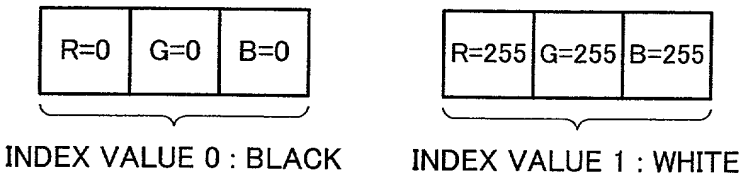


Fig. 8A

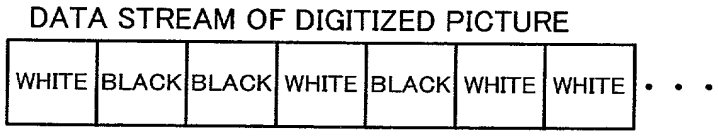
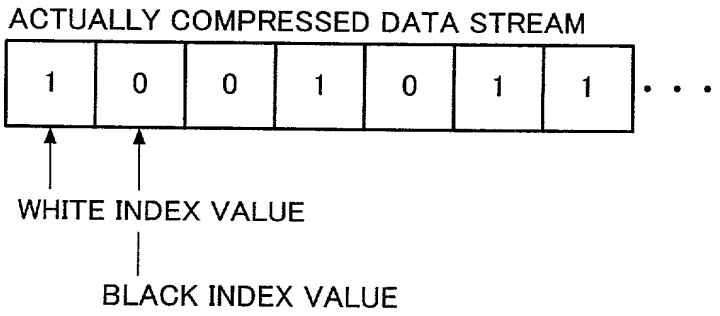
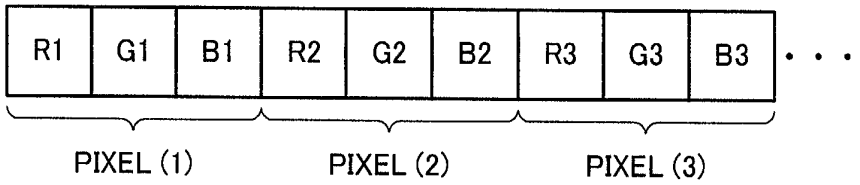


Fig. 8B



T06210 "05T2760

Fig. 9A



DIGITIZING PROCESS FOR COLOR PICTURE DATA
+
INDEX VALUE CONVERTING PROCESS FOR DIGITIZED DATA

Fig. 9B

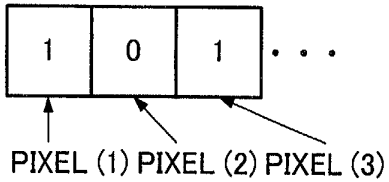


Fig. 10

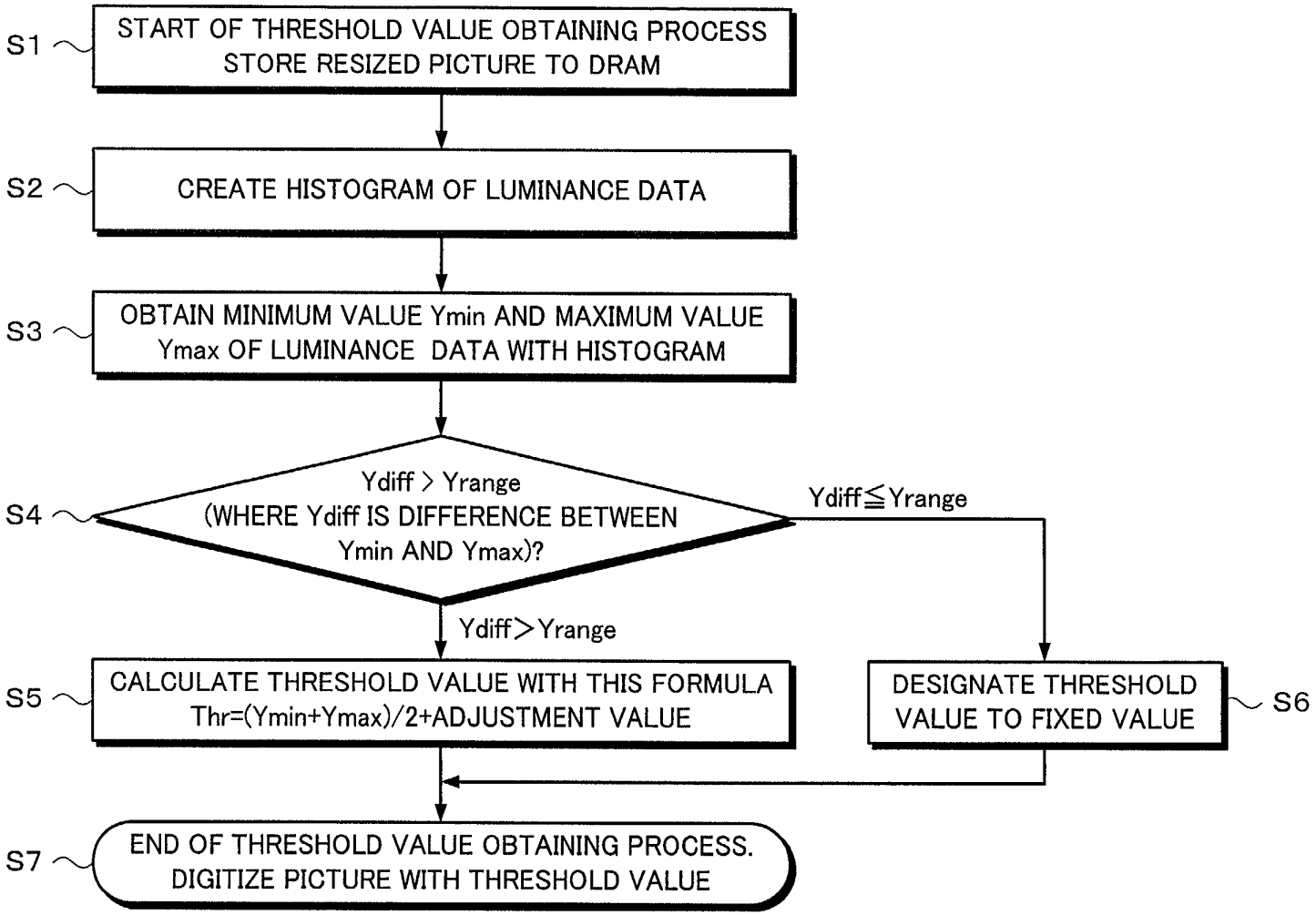

S1
START OF THRESHOLD VALUE OBTAINING PROCESS
STORE RESIZED PICTURE TO DRAM
S2
CREATE HISTOGRAM OF LUMINANCE DATA
S3
OBTAIN MINIMUM VALUE Ymin AND MAXIMUM VALUE Ymax OF LUMINANCE DATA WITH HISTOGRAM
S4
Ydiff > Yrange
(WHERE Ydiff IS DIFFERENCE BETWEEN Ymin AND Ymax)?
Ydiff≦Yrange
Ydiff>Yrange
S5
CALCULATE THRESHOLD VALUE WITH THIS FORMULA
Thr=(Ymin+Ymax)/2+ADJUSTMENT VALUE
DESIGNATE THRESHOLD VALUE TO FIXED VALUE
S6
S7
END OF THRESHOLD VALUE OBTAINING PROCESS.
DIGITIZE PICTURE WITH THRESHOLD VALUE

Fig. 11

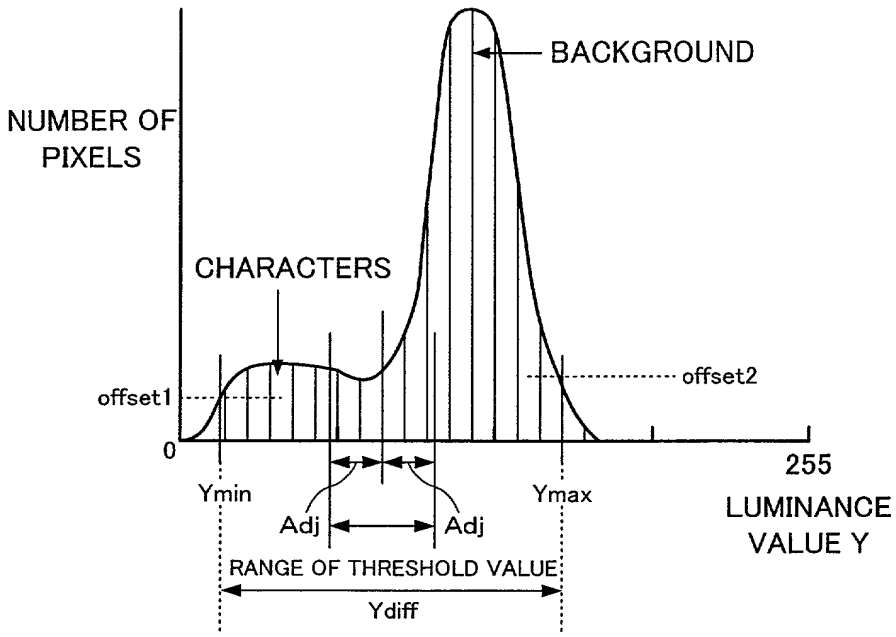

NUMBER OF PIXELS
BACKGROUND
CHARACTERS
offset1
offset2
0
255
Ymin
Ymax
Adj
Adj
LUMINANCE VALUE Y
RANGE OF THRESHOLD VALUE
Ydiff

Fig. 12

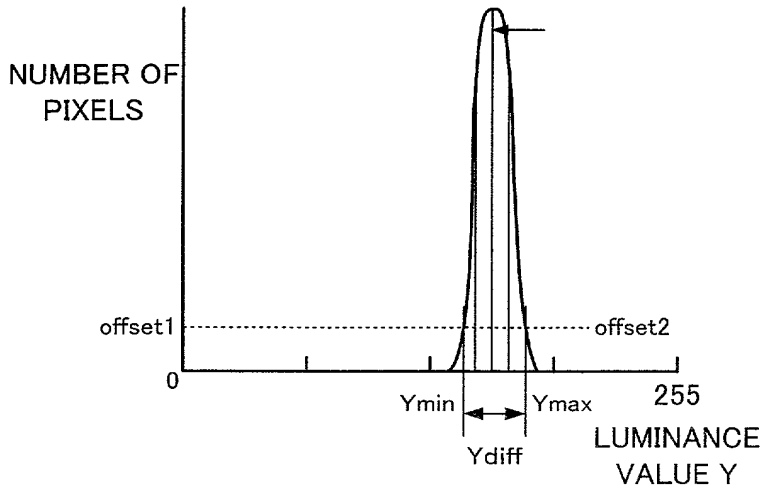

NUMBER OF PIXELS
offset1
offset2
0
Ymin
Ymax
255
Ydiff
LUMINANCE VALUE Y

Fig. 13

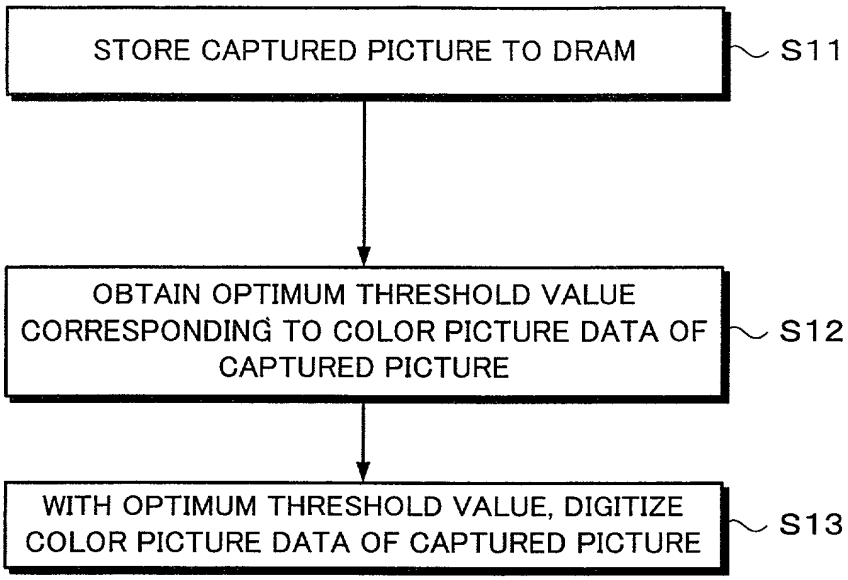

STORE CAPTURED PICTURE TO DRAM
S11
OBTAIN OPTIMUM THRESHOLD VALUE CORRESPONDING TO COLOR PICTURE DATA OF CAPTURED PICTURE
S12
WITH OPTIMUM THRESHOLD VALUE, DIGITIZE COLOR PICTURE DATA OF CAPTURED PICTURE
S13

Fig. 14

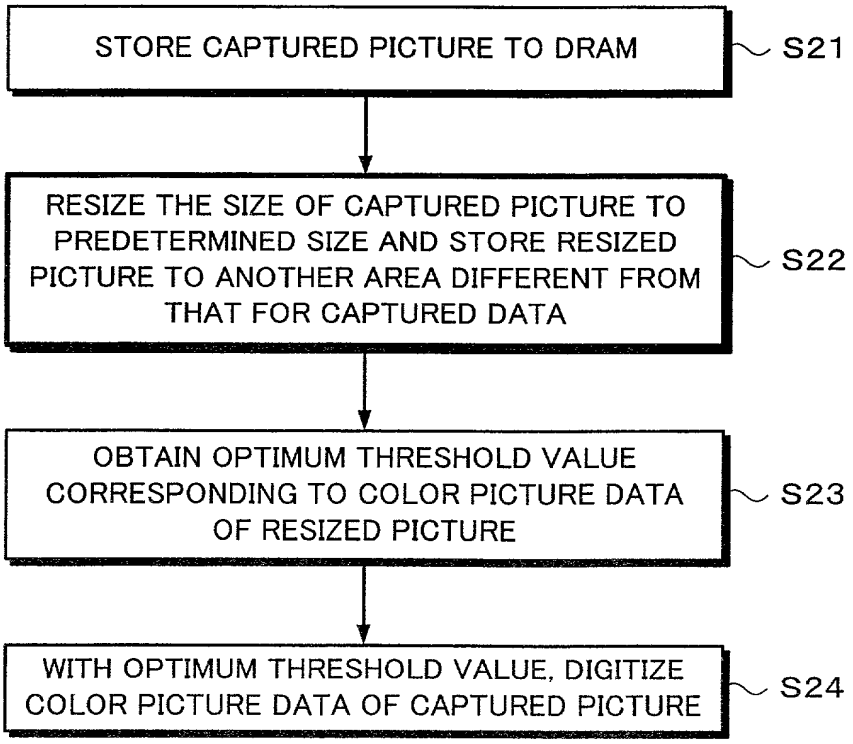

STORE CAPTURED PICTURE TO DRAM
S21
RESIZE THE SIZE OF CAPTURED PICTURE TO PREDETERMINED SIZE AND STORE RESIZED PICTURE TO ANOTHER AREA DIFFERENT FROM THAT FOR CAPTURED DATA
S22
OBTAIN OPTIMUM THRESHOLD VALUE CORRESPONDING TO COLOR PICTURE DATA OF RESIZED PICTURE
S23
WITH OPTIMUM THRESHOLD VALUE, DIGITIZE COLOR PICTURE DATA OF CAPTURED PICTURE
S24

Fig. 15

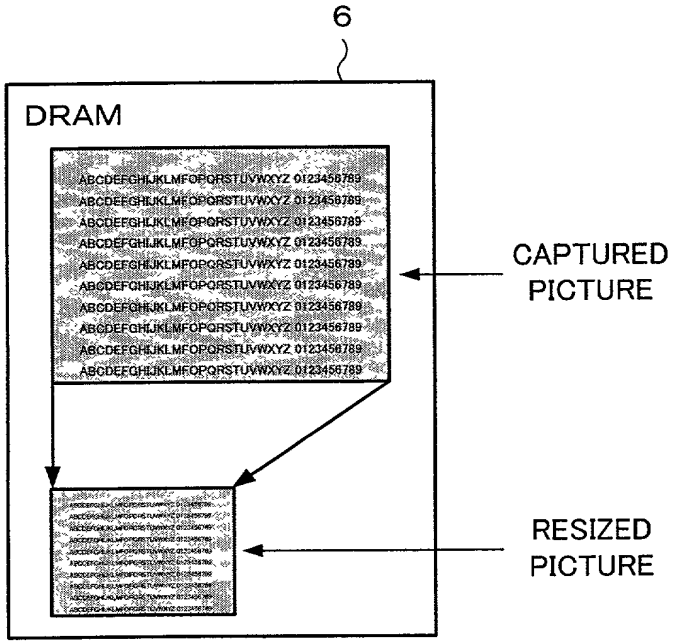


Fig. 16A

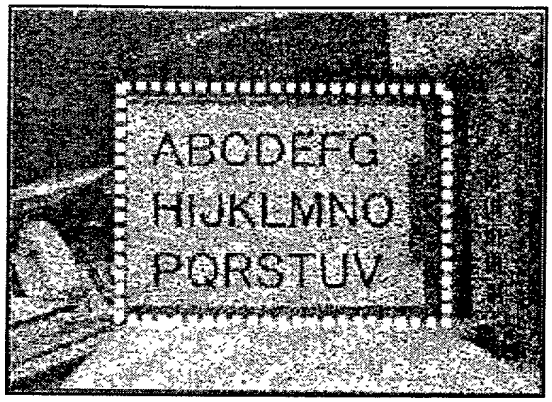


Fig. 16B

Fig. 16C

Fig. 17A

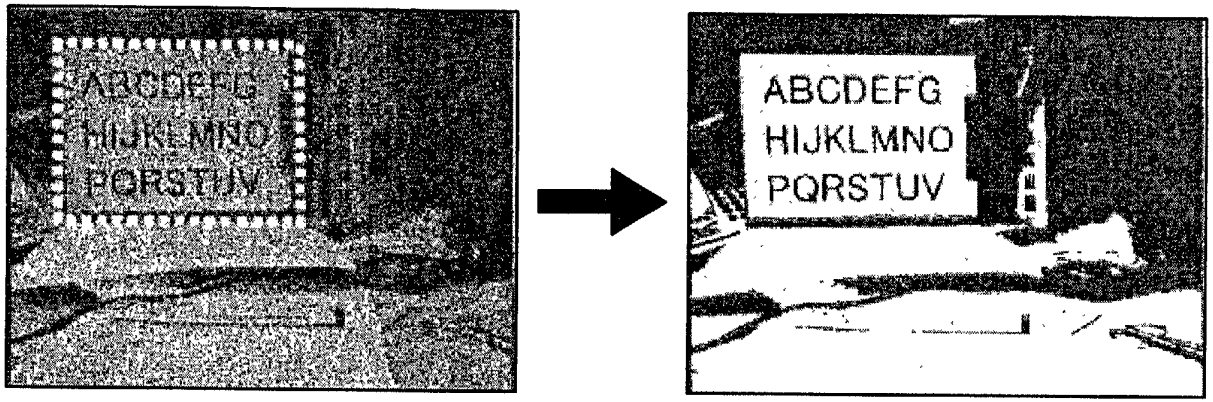


Fig. 17B

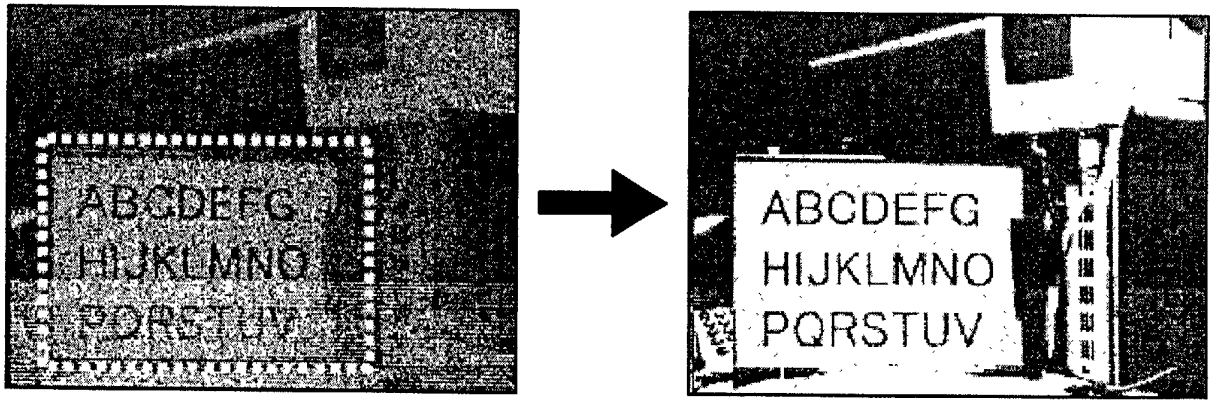


Fig. 18A

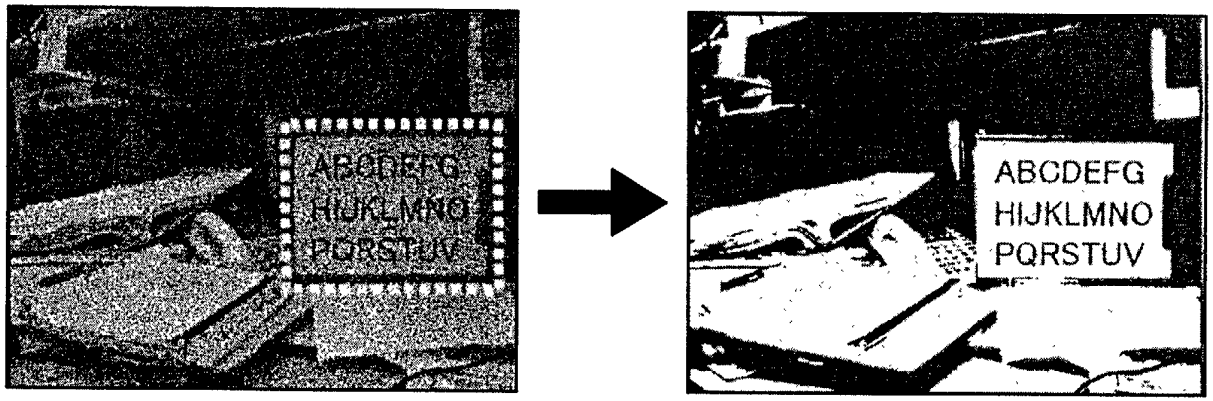


Fig. 18B

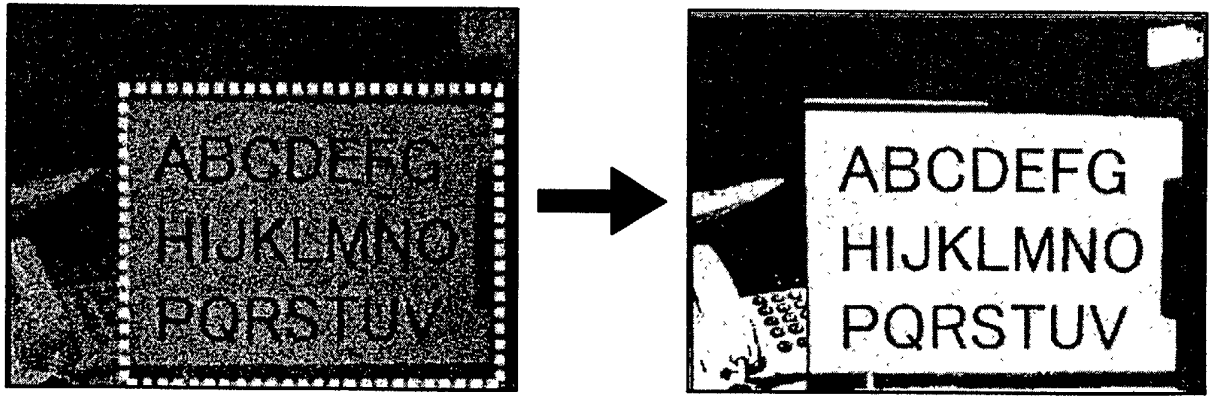


Fig. 19A

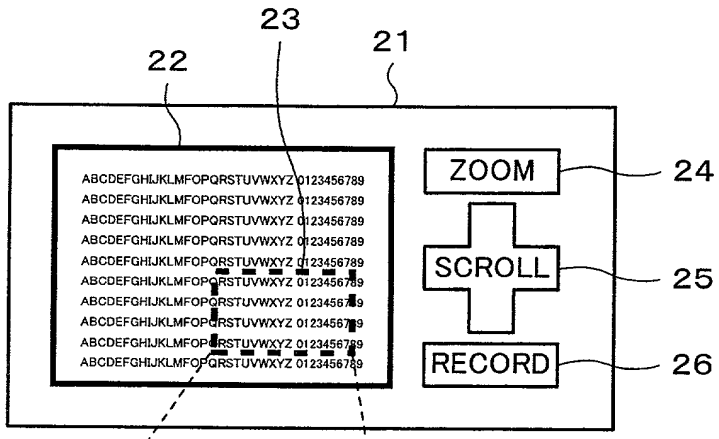


Fig. 19B

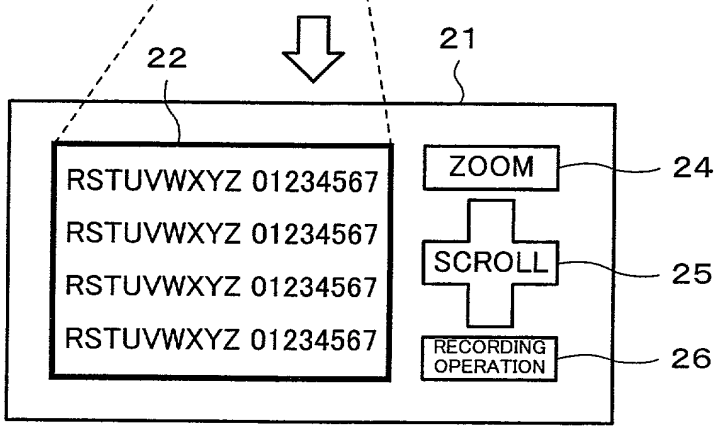
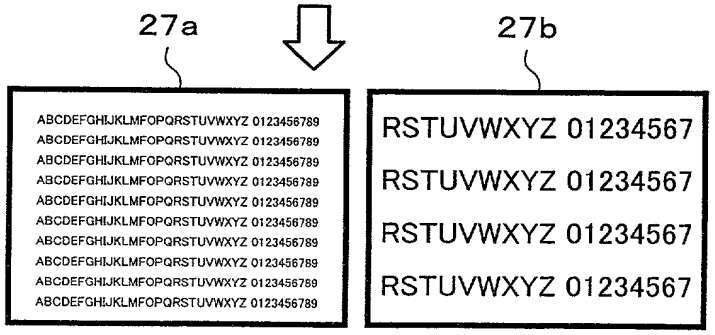



Fig. 19C